Hematopoiesis (HP)

The **Hematopoiesis (HP)** Study Section reviews applications involving both basic and applied aspects of normal and abnormal hematopoiesis, including stem cell biology, hematopoietic growth factors and their receptors, leukemias and leukemogenesis, bone marrow failure syndromes, myeloproliferative syndromes, stem cell transplantation, and hematopoietic cell gene therapy.

Specific Areas covered by HP:

- Stem cell biology, hematopoietic growth factors and their receptors.
- Erythropoiesis, myelopoiesis and thrombopoiesis.
- Leukemias and leukemogenesis, myelodysplasias, myeloproliferative syndromes and bone marrow failure syndromes, including PNH and Fanconi amenia.
- Experimental bone marrow and blood stem cell transplantation. Graft versus host disease and graft rejection.
- Hematopoietic cell gene therapy.

Shared Interests Outside the IRG:

- IRG 5 (Biology of Development and Aging): Shared interest exists for studies of apoptosis and cell cycle in blood elements. Assignment to HP is appropriate when the primary focus is on hematopoiesis, especially when related to hematologic disorders. IRG 5 may be appropriate for studies that use blood elements as a source material to study general developmental processes.

- IRG 6 (Fundamental Bioengineering and Technology Development): Applications focused on specific hematological stem cell or gene transfer therapies are relevant to HP. Grant applications focused on developing stem cell and gene transfer technologies to introduce genes and drugs in a general context are relevant to IRG 6.

- IRG 10 (Immunology IRG): Normal hematopoiesis is an area of shared interest. All aspects of hematopoiesis are appropriate for HP. IRG 10 may also be considered when the focus is on myelopoiesis or lymphopoiesis.

- IRG 10 and IRG 13 (Immunology IRG and Oncological Sciences IRG): Bone marrow transplantation is an area of shared interest with IRGs 10 and 13. Bone marrow transplantation studies, particularly those using stem cells or immune deficient animals, may be appropriate for HP. When the primary focus of the study is on immunological aspects of graft versus host disease then the assignment could be to IRG 10. Studies on bone marrow transplantation as they relate to leukemia or other tumors are appropriate for IRG 13.

- IRG 13 (Oncological Sciences IRG): The pathogenesis of the leukemias and lymphomas is an area of shared interest. HP is the appropriate review group for studies of the molecular pathogenesis of hematologic malignancies. Studies of leukemia and lymphoma diagnosis, prognosis, treatment, as well as treatment outcomes and complications are best reviewed in IRG 13. Translational studies and early phase clinical trials of hematopoietic stem cell transplantation specifically for the treatment of malignant diseases, or the use of these approaches to modulate tumor immunity, should also be reviewed by IRG 13.

- Stem Cells: Shared interest may exist with many IRGs concerning common stem cell precursors. Assignment of applications on the transdifferentiation of cells between the blood and other cell types should be resolved in the direction of the final phenotype.